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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,235	12/21/2001	Michael Schmidt	D4558-US	6684

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EXAMINER

BHATIA, NEERAJ R

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/032,235	Applicant(s) SCHMIDT, MICHAEL	
	Examiner Neeraj Bhatia	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-20 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,5,7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis.

With respect to claim 1, Davis in Pat No. 5,428,610 includes a hybrid FM radio system, which transmits an analog (Fig 3A: 94 column 7 lines 1-4) and digital signal (Fig 3A: 86 column 6 lines 58-60), where the digital signal is packetized (Fig 3B and 3C column 8 lines 25-26) and is transmitted on a subcarrier band (Fig 3D: SCA Band column 7 lines 15-25). Davis also discloses a receiver (Fig 3A: 26C column 7 lines 25-28) for receiving the signals where the digital signal is decoded and converted to an analog output (column 7 lines 29-35) and the receiver has a means of determining the audio output (Fig 3A: 111 and 116 column 7 lines 29-41).

Regarding claims 2, in Fig 3A, the signal processor 84 in Fig 3A is a digital source, which the digital signal 86 is directly derived from.

With respect to claim 5, Davis discloses in Fig 5A1 column 15 lines 60-65 a user interface giving selection information which commands the multiplexer 342 to

route either the regular FM program or the selected FM-SCA program to the speakers.

Regarding claims 7 and 8, Davis discloses a hybrid FM radio system that discloses all that is in claim 1, which has a multiplexer 342 in Fig 5A1 connected to the analog FM signal and digital FM signal and also discloses all that is in claim 5.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,428,610) in view of Kroeger (6,430,227).

Davis discloses a hybrid FM radio system according to claim 1, but he does not disclose a digital FM signal derived from an analog source. However, Kroeger discloses in Fig 7 a hybrid FM radio system that has a digital FM signal derived from an analog or digital source. It would have been obvious to one skilled in the art at the time of the invention to include a digital signal deriving from an analog source as to expand on the functionality of the radio receiver.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,428,610) in view of Kroeger (6,178,317).

Davis in Patent No. 5,428,610 discloses all that is stated above to satisfy claim 3, but he does not disclose a delay in the analog signal, which is equivalent to the cumulative time delay of processing the digital signal in the transmitter section and the receiver section. However, Kroeger in Patent No. 6,178,317 discloses in column 7 lines 10 to 30, that it is important that the respective time delays of the primary audio signal path and the redundant audio signal path be made equivalent prior to their coupling to the blending circuit system, and the digital processing circuits of the IBOC DAB system introduce certain delays, it may be desirable to separately account for those delays in the redundant signal path. Thus, Kroeger discloses that the redundant audio signal is exposed to the same processing delays as the primary audio signal. It would have been obvious to one skilled in the art at the time of the invention to include a delay in the analog signal in order to have the decoded digital waveform time synchronized with the analog waveform.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Curtin.

Davis discloses a hybrid FM radio system according to claim 1, but he does not disclose that the digital FM signal is packetized in an MP3 format. Curtin in Patent No. 6,925,489 discloses in column 1 lines 25-29 that a well-known conventional format for downloadable audio information is the MPEG-1 Level 3 Digital Audio Standard, also referred to as MP3. This music may be transmitted to the user in an at least partially-encrypted format. It would have been obvious to one skilled in the art at the time of the

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invention to use this format in order to transmit the compressed audio data, which is being sent.

Allowable Subject Matter

7. Claims 9 –11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 12-20 are allowed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goken (Patent No. 5,584,051) discloses a hybrid FM system capable of transmitting both an analog signal and digital signal. Chan (Patent No. 6,600, 908) discloses a hybrid FM system capable of transmitting both an analog signal and a digital signal along with a switch used to switch between the analog and digital signal in response to a user input.

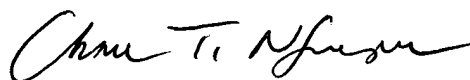
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neeraj Bhatia whose telephone number is (571) 272-5204. The examiner can normally be reached on Monday through Friday: 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NB



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